Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

Claims 1-10 (canceled)

Claim 11 (currently amended): A method of processing polymer-based mixtures and compounds in a closed mixer, wherein the mixer comprises:

a mixing chamber;

a pair of rotors; and

a pressing ram;

wherein the pressing ram is movable between a resting condition, which allows introduction of material into the mixing chamber, and a working condition[[;]], and

wherein the method comprising the steps of comprises:

introducing the material into the mixing chamber;

moving the pressing ram from the resting condition to an upper end-of-stroke position; and

moving the pressing ram from the upper end-of-stroke position to a lower end-of-stroke position;

wherein a position-time profile of the pressing ram is controlled during the step of moving the pressing ram from the upper end-of-stroke position to the lower end-of-stroke

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position so that mixing of the material is completed as the pressing ram reaches the lower end-of-

stroke position.

Claim 12 (previously presented): The method of claim 11, wherein control of the

position-time profile of the pressing ram is initiated when the pressing ram contacts the material.

Claim 13 (previously presented): The method of claim 11, wherein the position-time

profile of the pressing ram is controlled by regulating a control pressure of the pressing ram to

follow a predetermined reference position-time profile.

Claim 14 (currently amended): The method of claim 11, wherein the step of moving the

pressing ram from the resting condition to the upper end-of-stroke position is preceded by a step-

of introducing into the mixing chamber at least one reinforcing filler of a polymer base, and

wherein the step of moving the pressing ram from the upper end-of-stroke position to the

lower end-of-stroke position occurs during incorporation of the at least one reinforcing filler into

the polymer base.

Claim 15 (previously presented): The method of claim 14, wherein the pressing ram

reaches the lower end-of-stroke position at an end of incorporation of the at least one reinforcing

filler into the polymer base.

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Claim 16 (previously presented): The method of claim 15, wherein plasticizers of the polymer base are introduced into the mixing chamber after the pressing ram has reached the lower end-of-stroke position.

Claim 17 (previously presented): The method of claim 14, wherein the at least one reinforcing filler of the polymer base comprises one or more of carbon black and silica.

Claim 18 (previously presented): The method of claim 11, wherein the position-time profile of the pressing ram is a direct processing parameter.

Claim 19 (previously presented): The method of claim 11, wherein the material introduced into the mixing chamber comprises a crosslinking system for a polymer-based mixture.

Claim 20 (previously presented): The method of claim 11, wherein the material introduced into the mixing chamber comprises a mixture.

Claim 21 (new): The method of claim 11, wherein the position-time profile is predetermined.

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Claim 22 (new): The method of claim 11, wherein, during moving the pressing ram from the upper end-of-stroke position to the lower end-of-stroke position, motion of the pressing ram is subject to oscillations caused by effects of rotation of the rotors on the material.

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